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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of )  
Bonnette, et al. )  
Patent No. 6,805,684 )  
Patent Date: 10/19/2004 )  
Serial Number: 09/930,795 )  
Filed: 08/16/2001 )  
For: Thrombectomy Catheter )  
and System )

TRANSMITTAL OF  
CERTIFICATE OF  
CORRECTION

Certificate  
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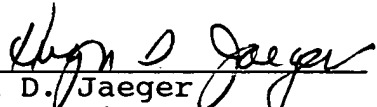
Please find attached a Certificate of Correction, Form PTO/SB/44, for the above patent.

A check for \$100 is attached. Charge any additional fees to Deposit Account 10-0230.

Respectfully submitted,

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10/28/2004

  
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**UNITED STATES PATENT AND TRADEMARK OFFICE  
CERTIFICATE OF CORRECTION**

PATENT NO. : 6,805,684  
DATED : 10-19-2004  
INVENTOR(S) : Bonnette, et al.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

**Inventorship**

Amend inventor name "Steven E. Wiesel" to read  
--Stephen E. Weisel--.

Amend inventor name "Robert C. Dutcher" to read  
--Robert G. Dutcher--.

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PATENT NO. 6,805,684

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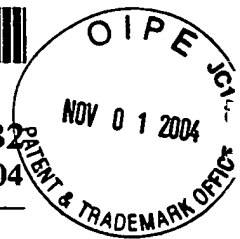
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(12) **United States Patent**  
**Bonnette et al.**

(10) **Patent No.:** **US 6,805,684 B2**  
(45) **Date of Patent:** **Oct. 19, 2004**

(54) **THROMBECTOMY CATHETER AND SYSTEM**

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\* cited by examiner

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(57) **ABSTRACT**

Cross stream thrombectomy catheter and system for fragmentation and removal of thrombus or other material from blood vessels or other body cavities. High velocity saline jets emitted from a toroidal loop jet emanator or other jet emanator in a catheter distal end entrain fluid through inflow orifices, and with flow resistances create a back-pressure which drives cross stream streams through outflow orifices in a radial direction and thence radially and circumferentially to apply normal and drag forces on thrombotic deposits or lesions in the blood vessel or other body cavity, thereby breaking apart and transporting thrombus particles to be entrained through the inflow orifices, whereupon the high velocity jets macerate the thrombus particles which then transit an exhaust lumen or recirculate again via the outflow orifices.

**21 Claims, 26 Drawing Sheets**

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(73) **Assignee:** **Possis Medical, Inc.**, Minneapolis, MN (US)

(\*) **Notice:** Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) **Appl. No.:** **09/930,795**

(22) **Filed:** **Aug. 16, 2001**

(65) **Prior Publication Data**

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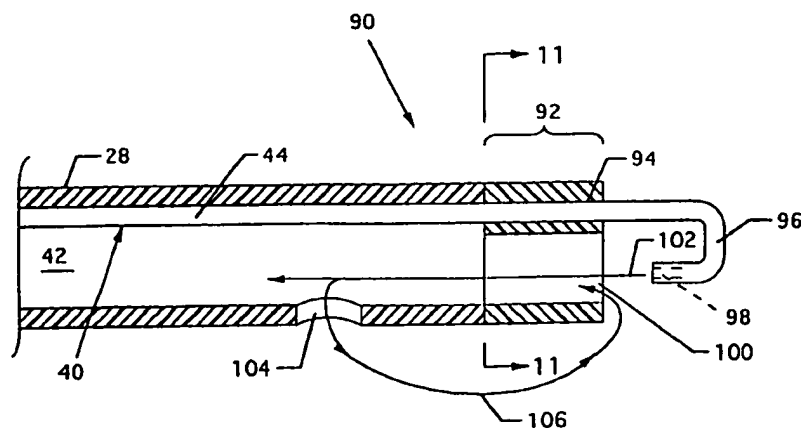
**Related U.S. Application Data**

(62) Division of application No. 09/417,395, filed on Oct. 13, 1999, now Pat. No. 6,676,627, which is a continuation-in-part of application No. 08/349,665, filed on Dec. 5, 1994, now Pat. No. 6,558,366, which is a division of application No. 08/006,076, filed on Jan. 15, 1993, now Pat. No. 5,370,609, which is a continuation of application No. 07/563,313, filed on Aug. 6, 1990, now abandoned.

(51) **Int. Cl.<sup>7</sup>** ..... **A61B 17/20**

(52) **U.S. Cl.** ..... **604/22; 604/35; 604/43; 606/159**

(58) **Field of Search** ..... **604/22, 43, 35, 604/27, 48, 118, 119, 19, 264, 523-527; 606/127, 128, 159, 190, 167, 170, 194, 180; 134/167 C, 168 C, 167 R, 172; 433/96; 239/214.15**



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